

***PINUS CONTORTA* VAR. *CONTORTA* -
PSEUDOTSUGA MENZIESII / *MAHONIA NERVOSA***

Lodgepole pine - Douglas-fir / dwarf Oregongrape

Abbreviated Name: PICO-PSME/MANE

Synonym: *Pinus contorta* var. *contorta* –

Pseudotsuga menziesii / *Berberis nervosa*

Sample size = 6 plots

DISTRIBUTION: Known only from Orcas Island, San Juan County.

GLOBAL/STATE STATUS: GNRS1. Largely dependent on a specific fire regime or landscape-level fire mosaic. There are only two known occurrences. Continued fire suppression is a long-term threat that will likely result in loss of this association as lodgepole pine dies out in succession.

ID TIPS: Dominated or co-dominated by lodgepole pine with Douglas-fir at least present. Understory dominated or co-dominated by dwarf Oregongrape with little to no salal.

ENVIRONMENT: These sites are moderately dry to mesic and appear to be nutrient-medium. Sites occupied are flats to moderate slopes on various aspects, typically in relatively dry topographic positions. Parent material is sedimentary residuum, locally mixed with glacial till. Occurs on sites mapped as very gravelly silt loam.

Precipitation: 38-46 inches (mean 44)

Elevation: 1000-2200 feet

Aspect/slope: various/ 2-33% slope (mean 19)

Slope position: upper, ridge, plain

Soil series: Pickett

DISTURBANCE/SUCCESSION: This association is an early- to mid-seral successional stage that will progress in the absence of disturbance (probably between stand age 100 and 200 years) to dominance by Douglas-fir and western hemlock (PSME-TSHE/MANE). This association would have likely been maintained in a shifting mosaic on the landscape by high-severity fires.

VEGETATION: Forest dominated or co-dominated by lodgepole pine, with Douglas-fir typically co-dominant or at least prominent in the sapling layer. Western hemlock is usually present to

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Vegetation Composition Table (selected species):

Con = constancy, the percent of plots within which each species was found;
Cov = cover, the mean crown cover of the species in plots where it was found;
+ = trace (< 0.5% cover).

Trees	Kartesz 2005 Name	Con	Cov
lodgepole pine	<i>Pinus contorta</i> var. <i>contorta</i>	100	63
Douglas-fir	<i>Pseudotsuga menziesii</i>	100	36
western hemlock	<i>Tsuga heterophylla</i>	83	8
Shrubs and Dwarf-shrubs			
dwarf Oregongrape	<i>Mahonia nervosa</i>	100	8
baldhip rose	<i>Rosa gymnocarpa</i>	100	3
little prince's pine	<i>Chimaphila menziesii</i>	67	+
tall Oregongrape	<i>Mahonia aquifolium</i>	33	+
oceanspray	<i>Holodiscus discolor</i>	33	3
salal	<i>Gaultheria shallon</i>	33	2
Graminoids			
Columbia brome	<i>Bromus vulgaris</i>	33	4
western fescue	<i>Festuca occidentalis</i>	33	3
Forbs and Ferns			
bracken fern	<i>Pteridium aquilinum</i>	100	6
twinline	<i>Linnaea borealis</i>	50	21
western starflower	<i>Trientalis borealis</i> ssp. <i>latifolia</i>	50	+
Scouler's bellflower	<i>Campanula scouleri</i>	33	4

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prominent in the understory or subcanopy. The shrub layer is sparse to moderate, with dwarf Oregongrape always present and usually prominent to co-dominant. Baldhip rose and little prince's pine are usually present. The herb layer is variable in expression. Half the plots have a well-developed herb layer dominated by twinflower. Bracken fern is present to prominent in all plots. Western starflower is sometimes present as well.

CLASSIFICATION NOTES: Not previously described in the literature. NatureServe will recognize this association in the future.

MANAGEMENT NOTES: On most sites, this association is dependent on a landscape fire regime that no longer exists. The known occurrences are well protected from logging and development, but in the long-term will be threatened by lack of fire. Prescribed fire could be considered as a management tool that would maintain a semblance of natural processes and the continuation of this seral stage on the landscape.



Chappell, C.B. 2006. Upland plant associations of the Puget Trough ecoregion, Washington. Washington Department of Natural Resources, Natural Heritage Program, Olympia, WA. [<http://www.dnr.wa.gov/nhp/refdesk/communities/pdf/intro.pdf>].